

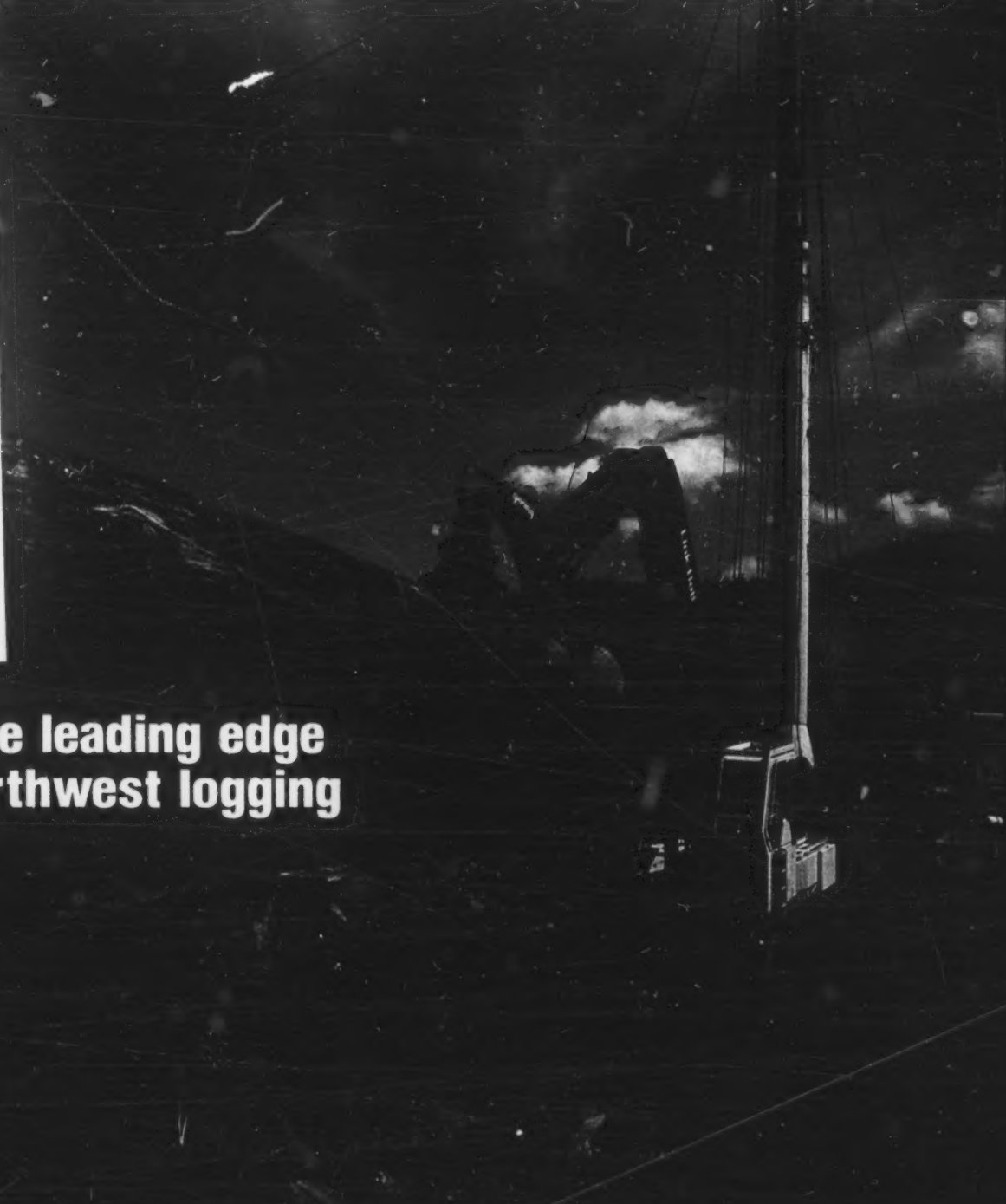
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OCTOBER 1989

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of Northwest logging**



OCTOBER

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Despite some forecasts of declining fortunes, the world's forest industry has a decent outlook to 2010, Canadian consultants contend

Sun will not 'set' on forest industry in next 20 years

Vancouver, British Columbia
Forest products is a growth business. It most certainly is not a "sunset industry." But the companies that plan to be around in 20 years will have to adapt to evolving markets and changing timber supplies.

They will have to invest in improved technologies, make high-quality products from lower-quality timber and work efficiently. Even more important, successful companies will have to get out in the marketplace and hustle their wares. If they do all this, they should prosper into the 21st Century.

These are some of the brighter conclusions from a massive, C\$325,000 study which Woodbridge, Reed & Associates (WRA) has completed for Forestry Canada. The six-volume, 900-page study, three years in the making, forecasts what life may be like for Canada's forest industry in the period from 1987 to 2010.

If you work for a company with large, efficient "supermills" and enlightened management, your chances of corporate survival should be pretty good. If your paycheck comes from a small saw-

mill, there seem to be three choices: grow (perhaps by consolidating with other nearby small producers), specialize (get out of commodity lumber production), or shut down.

All this is gross simplification, of course. The Vancouver consulting firm's huge study, "Canada's Forest Industry, the next twenty years: prospects & priorities," details the consultants' projections for both the solid-wood and pulp and paper sides.

Many of those forecasts are fairly bright, although the authors warn that no one should expect fast growth. In 1987, Canada's sales of forest products totaled C\$26.7 billion. By 2010, sales are predicted to rise 55% in constant 1986 dollars to C\$41.5 billion.

Growth will not come in a steady

TABLE 1—Canada's growth prospects: summary for wood products sector

	Production volume (million m ³)			
	1985	2010	Growth increment	% per year
Lumber	53.9	61.0	7.1	0.5
Panel products:				
Plywood	2.0	2.2	0.2	0.5
Reconstituted boards	2.5	5.6	3.1	3.2

SOURCE: Woodbridge, Reed and Associates.

Forecasts for growth in Canada's wood products sector are uneven. OSB and waferboard will see greater growth rates than lumber and plywood.

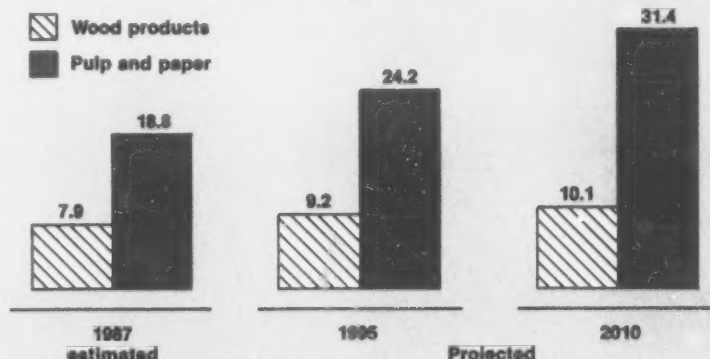
stream. Lumber producers, especially mills in commodity grades, can expect to endure the same kind of cycles they already know so well. Commodity lumber will continue to be used for residential construction, much of it in the United States. Strong ups and downs will continue.

But the market's dependence on housing will ease. During the next two decades, residential construction's share of the American lumber market will decline from 36% now to under 30%. The industrial sector's consumption share will mirror this, rising from 31% in the mid-80s to 37% in 2010. Canada supplies 40% to 45% of construction-grade lumber consumed in the United States now. In the future, competition is likely from Chile and other low-cost producers for commodity grades.

Woodbridge, Reed discounts U.S. Forest Service forecasts of sharply reduced U.S. lumber consumption. Coupled with stable domestic production, this would signal much lower lumber imports. These predictions, which WRA says are unrealistic, suggest U.S. lumber imports will plummet to 5.5 billion bd ft in 2010. In 1984, the U.S. imported 13.4 billion bd ft.

Worldwide lumber consumption will increase by only one-third during the next 20 years, WRA says, and most of

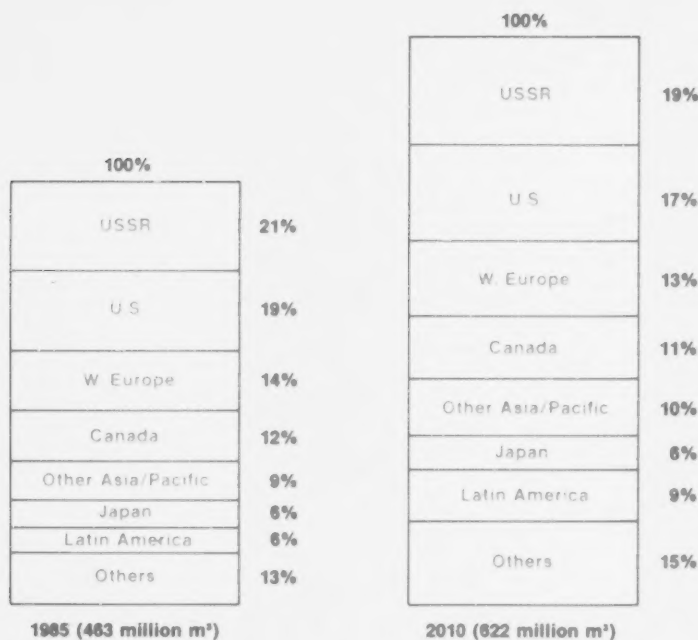
FIG. 1—Canada's forest industry: value of output*



* Billion 1987 C\$. SOURCE: Woodbridge, Reed and Associates.

Pulp and paper will be the growth side of Canada's forest products industry during the next 20 years. Values of solid-wood products will increase very slowly, along with the demand for these products.

FIG. 2—Regional % share of world lumber production



SOURCE: Woodbridge, Reed and Associates.

World leaders in lumber production, the Soviet Union and the United States, will maintain leadership, but lose shares of production. Latin America, especially Brazil and Chile, should see major production increases.

that increase will come in demand for tropical woods. Canada's sawmills can expect slow growth between now and 2010, along with shifts to higher-value specialty grades. Mills in the U.S. should plan for similar conditions.

Look for the most growth to come on the paper side. Pulp and paper products accounted for 70% of Canada's forest products value in 1987. By 2010, their share will be up to 76%.

WRA goes to some pains to note that this growth forecast, which it called "fairly conservative," will not happen unless Canadians spend big money on their mills. The consultants suggest that modernizing the industry will cost around C\$5.5 billion a year over the next two decades. That comes to C\$44 billion.

It is a lot of money, and more than Canada has been investing in its Number One industry. Since 1981, yearly investments in mills have averaged C\$4.5 billion. (These figures are all calculated in 1986 dollars.)

Producers must find the money, WRA says: "Ultimately, the magnitude and form of capital investment in the manufacturing industries will be the

acid test of whether Canada's forest industry will achieve its full potential over the next 20 years."

But what good are these updated, high-tech mills without wood to process? Are the stories true? Is Canada running out of wood?

Emphatically not, WRA contends. The study complains that those who claim severe fiber shortages are sending the wrong message to Canada's export customers. The country has plenty of timber—an apparent fiber surplus of 50.4 million m³, WRA figures. That comes to nearly 21.4 billion bd ft, using the conversion rate of 424 bd ft per cubic meter.

Where will all this fiber come from? Most of it from existing forests, since WRA suggests that Canada will have to make better use of its somewhat-neglected hardwood stands. When Canadian provinces figure their annual allowable cuts (AAC), often they don't even count hardwoods. The country's timber-based economy is built around abundant softwood.

Historically, 87% of Canada's harvested timber has been softwood. WRA calculates that 74% of its "apparent fi-

ber surplus" is hardwood. To complicate the matter, often these abundant hardwoods aren't in the same places as the softwoods. Some dislocation is likely if this fiber is to be utilized.

In British Columbia, for example, WRA says that provincial foresters do not even consider hardwood stands in figuring the province's AAC. B.C.'s softwood stands are essentially allocated to industry—at least the ones which are economically usable.

Including hardwoods in annual harvest limits would boost B.C.'s timber supply overall. It would also raise the softwood AAC by some 2 million m³ a year because softwoods also grow in these "hardwood" stands.

WRA points to similar situations in other provinces. The consultants used hardwood data when estimating that 50-million-cubic-meter apparent surplus.

WRA is quick to add that not all of this timber will be economically operable. But as supplies of handier timber dwindle, prices will rise. Then, just as has already happened in most forest areas, trees that were "too expensive" will be cut.

WRA classes Canadian timber costs as about average on a global scale. During the next 20 years, most Canadian timber will move into the high-cost area, when valued with the rest of the world.

By comparison, timber in the U.S. South is ranked as low-cost now, and it should remain in that category through 2010. Average-cost timber in the U.S. North and West is also expected to maintain its relative average cost on a worldwide scale.

Low-cost softwood fiber is currently available from Chile, Brazil, the southern U.S., Prairie provinces, Inland Empire (U.S.) and Iberia. By 2010, WRA estimates, low-cost softwoods will be mainly confined to Chile, Brazil and the U.S. South. By 2010, most of Canada's timber will be in high-cost areas: Ontario, Quebec, Atlantic provinces and the B.C. Coast. These areas will be in company with Sweden, Finland and Japan.

Chile and Brazil are likely to become significant competitors on world wood markets. In addition to relatively low costs, both countries expect large volumes of plantation timber to mature around the turn of the century.

Chile's supply of industrial softwood timber stood at about 8 million m³ (3.4 billion bd ft) in 1985. It is predicted to double to 17 million m³ by 1995, then zoom to 27 million in 2000.

Brazil, which specializes in hardwoods, will see 1985's industrial hardwood timber supply of 35 million m³ soar to 76 million by 2000 (about 32.2 billion bd ft). This high-quality, low-cost plantation eucalyptus is by far the

most competitive hardwood in the world, WRA notes.

Further boosting these two countries' competitive advantage will be low costs for both labor and energy. Even transportation to major importing markets (Japan, the U.S., Western Europe) will be no more than average.

In addition to major new wood supplies in these and other countries with large plantations (New Zealand, e.g.), fiber supplies in developed countries will increase because of better utilization. WRA's forecasts include some improvements in technology. These will not be dramatic during the next 20 years, but will be sufficient to raise yields of wood products from trees harvested.

Improved technology will make it possible to process oversawed, diseased and damaged timber, WRA predicts, further boosting fiber supplies.

If Canadian producers are willing (and able) to invest the billions of dollars necessary to compete successfully in global markets, they will find plenty of market opportunities. Taking advantage of these opportunities "will require much more enlightened policies and co-ordination (among) the various segments of the industry," the study says.

Industry managers bear the burden of making their industry prosper: "The key resource of tomorrow will be effective and innovative management, both in the public as well as the private sector."

WRA adds, "We conclude that all forest industry players have to continue with the current shift from mainly production-oriented to predominately marketing-focused management."

In the past, Canada has been pretty much able to offer its forest products for sale and let the world come calling. The emphasis was on reducing production costs to ensure competitiveness. Those days are over, WRA says.

"The increasingly competitive conditions which will prevail, and the regional specialization which will occur under liberalized trade globally, are very much in favor of Canada's resource position

FIG. 3—1987 softwood fiber costs (US\$/BDMT)

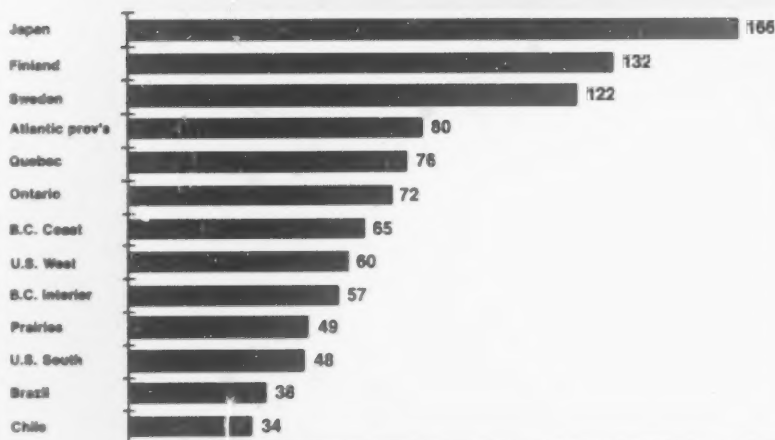


FIG. 4—1987 labor costs (US\$/hr worked)

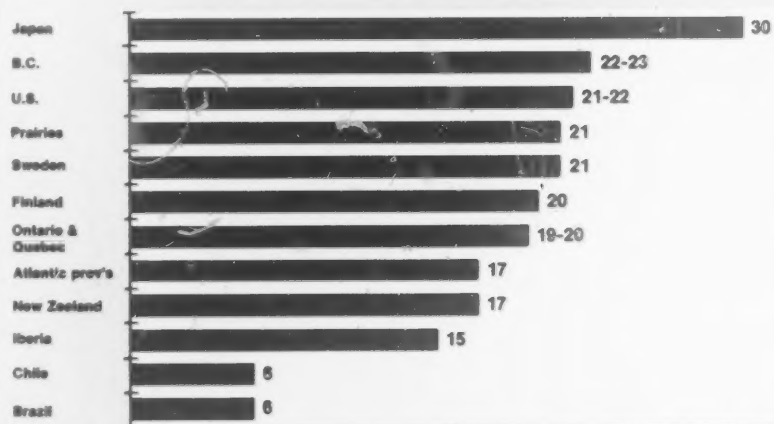
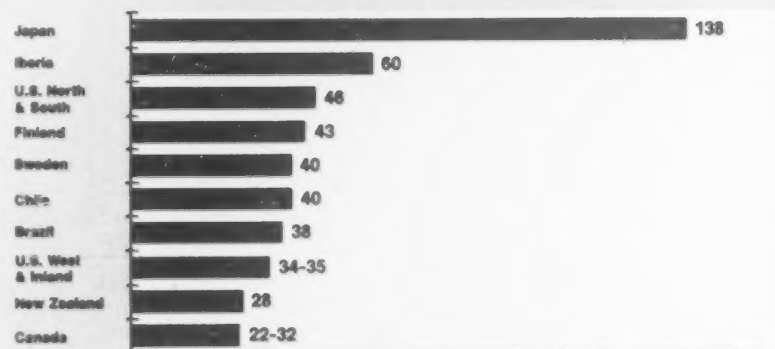


FIG. 5—1987 energy costs (US\$/MWH)



SOURCE: Woodbridge, Reed and Associates.

Low-cost countries and regions will see the greatest production increases during the next 20 years. These charts compare 1987 costs of fiber, labor and energy among major forest products producers worldwide. Canada's advantage in lower energy costs helps offset higher relative costs for timber and labor, according to Woodbridge, Reed & Associates. The study, done for Forestry Canada, forecasts worldwide supply and demand trends in the forest products industry through 2010. Canada's outlook is bright.

and manufacturing capability," the study predicts. "They will reinforce Canada's very progressive policies on resource development. They will support an aggressive shift toward forward integration and higher value-added.

"Most importantly, they will allow the forest products manufacturing industry to capitalize on its competitive strengths and exploit more fully the process and product technologies in which Canada can achieve excellence."

gives it an important advantage. WRA adds that the new free trade agreement between the two countries will probably help Canada's forest industry overall.

"The large and growing U.S. market is Canada's natural export destination," WRA notes. Free trade will remove some barriers to Canadian products, and may also spur American investment in Canadian mills.

Softwood lumber is a mature industry, the study says. Sales to the U.S. will

try must remain commodities.

Growth in sales of solid-wood products will be modest. WRA predicts a 28% increase by 2010, to C\$10.1 billion (in 1986 dollars). By contrast, sales in the pulp and paper sector will soar 68% to C\$31.4 billion. The consultants expect the two sectors to become increasingly integrated during the period.

Among solid-wood products, lumber production is forecast to edge up an average of 0.5% a year until 2010. Plywood will see the same slow growth rate. But production of reconstituted panels such as OSB and waferboard could grow as much as 3.2% annually, according to Woodbridge, Reed.

Most technological changes in the next 20 years will involve processing: improved scanners, computer-aided optimization, profile sawing and thin-kerf sawing.

None of these changes will yield great breakthroughs, WRA predicts.

What producers must do is design and sell lumber and panel products that develop and fit into small market niches. In other words, the forest industry will have to do what other industries have been doing for years: find a need and fill it. Or, failing that, create a new need. This will be especially so for smaller mills, which will find it harder and harder to compete in commodity markets with "supermills."

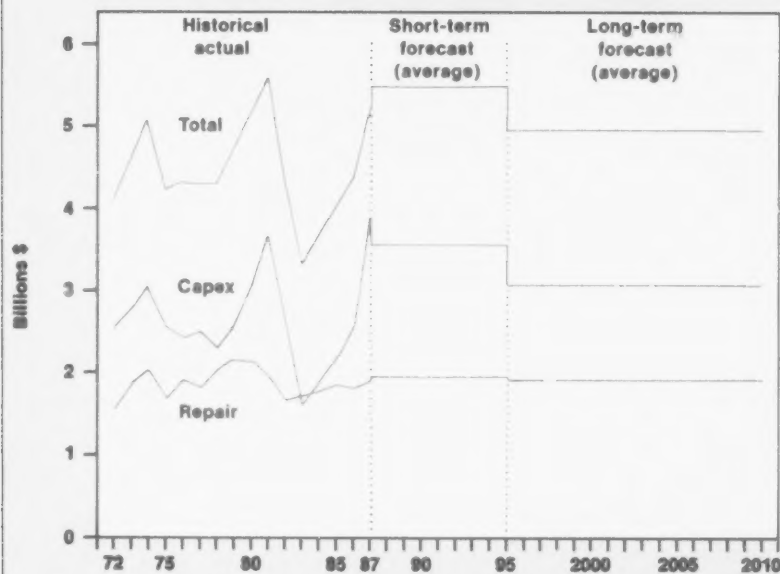
Wood-based panel markets will grow slowly during the study period. Industrialized countries have already substituted about as much panel for lumber as will occur. World production is forecast to rise from 110 million m³ in 1985 to 140 million by 1995 and 175 million in 2010.

Most of the growth will be in output of reconstituted panels. OSB/waferboard panels are cheaper to make than plywood, and can be easily substituted for most uses. The competitive outlook is tough for softwood plywood mills.

In the U.S., WRA predicts that OSB/waferboard will have 40% of the structural panel market by 1995. Their share was less than 15% in 1985. Total U.S. consumption of structural panels is forecast to rise from a little more than 20 million m³ in 1985 to around 30 million m³ in 2010.

On the pulp and paper side, production of bleached softwood kraft pulp is forecast to slip about 1% a year during the period. However, hardwood pulps are likely to pick up the slack, growing about 4% annually. Among papers, newsprint and printing and writing papers will maintain their dominance. While newsprint production growth is forecast at 1.5% annually, increases in output of printing and writing papers could well exceed 4% a year. ■

FIG. 6—Forest sector, historical and forecasted capital spending (1986 constant dollars)



SOURCE: Statistics Canada, Woodbridge, Reed and Associates.

To keep its position as a major forest products nation, Canada must invest C\$44 billion during the next 20 years to maintain and modernize solid-wood and pulp and paper mills.

Traditionally, Canada has exported three types of forest products: construction-grade softwood lumber, softwood bleached kraft market pulp and newsprint. WRA warns that markets for commodity grades of lumber and pulp will be static between now and 2010. Prices, in real terms, are likely to do no better than hold their own.

Competition will be tougher. For example, both Brazil and Chile have large plantations of maturing timber and increasing processing capacity. Latin America's low labor costs will offset higher transportation to give Canada a run for its money in the vital U.S. market.

Canada's location adjacent to "one of the largest, growing and net-importing areas in the world," the United States,

remain dominant for Canadian mills, but they are not likely to grow much. Wood-based panels will probably not be a major driving force for Canada's forest industry, but there are some growth opportunities over the long term.

Although these low-unit-cost commodity markets are not forecast to grow significantly, they will continue to be the mainstay of Canada's forest economy for many years beyond 2010. The next 20 years will bring changes, but no "revolution" in markets.

Instead, expect an evolution toward more "supermills," integrated operations producing softwood lumber, market pulps and newsprint. On a percentage basis, high growth will come in output of higher-value-added specialty products, but the backbone of the indus-

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